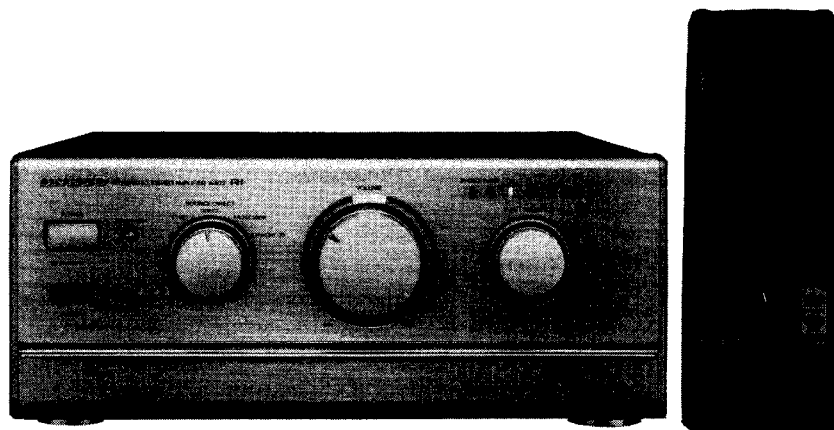


ONKYO SERVICE MANUAL

Integrated Stereo Amplifier MODEL A-922



Black and Silver models

BUP/SUP	230V AC, 50Hz
BUW	120/220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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SPECIFICATIONS

Power output:	43 watts per channel, min RMS, at 8 ohms, both channels driven from 20 Hz to 20 kHz, with no more than 0.08% THD. 2 × 70 watts at 4 ohms, 1 kHz(DIN) 2 × 50 watts at 8 ohms, 1 kHz(DIN)
Total harmonic distortion:	0.08% at rated power
IM distortion:	0.08% at rated power
Damping factor:	60 at 8 ohms
Frequency and response:	15–30,000 Hz ±1 dB
Input sensitivity/impedance:	Phono (MM): 2.5 mV/50 kohms Tuner/CD/LINE: 150 mV/50 kohms Tape/MD Play: 150 mV/50 kohms Processor In: 150 mV/50 kohms
Output sensitivity/impedance:	Tape/MD Rec: 150 mV/2.2 kohms Processor Out: 150 mV/2.2 kohms
Phono overload:	130 mV RMS. at 1 kHz, 0.1% THD

S.Bass control:	(MM) (REC) ±10 dB at 55 Hz
Bass control:	±10 dB at 100 Hz
Treble control:	±10 dB at 10,000 Hz
Signal to noise ratio (IHF-A):	Phono (MM): 80 dB (5 mV input) CD/Tape: 100 dB
Muting:	–∞ dB

General

Power supply:	European models: AC 230V, 50Hz Worldwide models: AC 120 and 220-230V switchable, 60/50Hz
Dimensions:	275 (W) × 118 (H) × 336 (D) mm 10-13/16" × 4-5/8" × 13-1/4"
Mass:	7.0 kg, 15.4 lbs.

Specifications and features are subject to change without notice.

PRECAUTIONS

1. Replacing the fuses

 This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

 Ce symbole indique que le fusible utilise est a rapide. Pour une protection permanente, n'utiliser que des fusibles de meme type. Ce d'arnier est indique la qu le present symbol est appose.

CIRCUIT NO.	PART NO.	DESCRIPTION
F901	252074	2A-SE-EAK, Primary <P>
F903	252074	2A-SE-EAK, AC outlet <P>
F904	252152	5A-TSC, Primary <W>
F905	252074	2A-SE-EAK, Primary <W>

NOTE: <P>:230V model only
<W>: Worldwide model only

2. Change of voltage

Worldwide models are equipment with a voltage selector to conform with local power supplies. This switch is located on the back panel.

Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on.

This switch is set to 220V at the factory. Voltage is changed by sliding the groove in the switch with the screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on.

3. Memory preservation

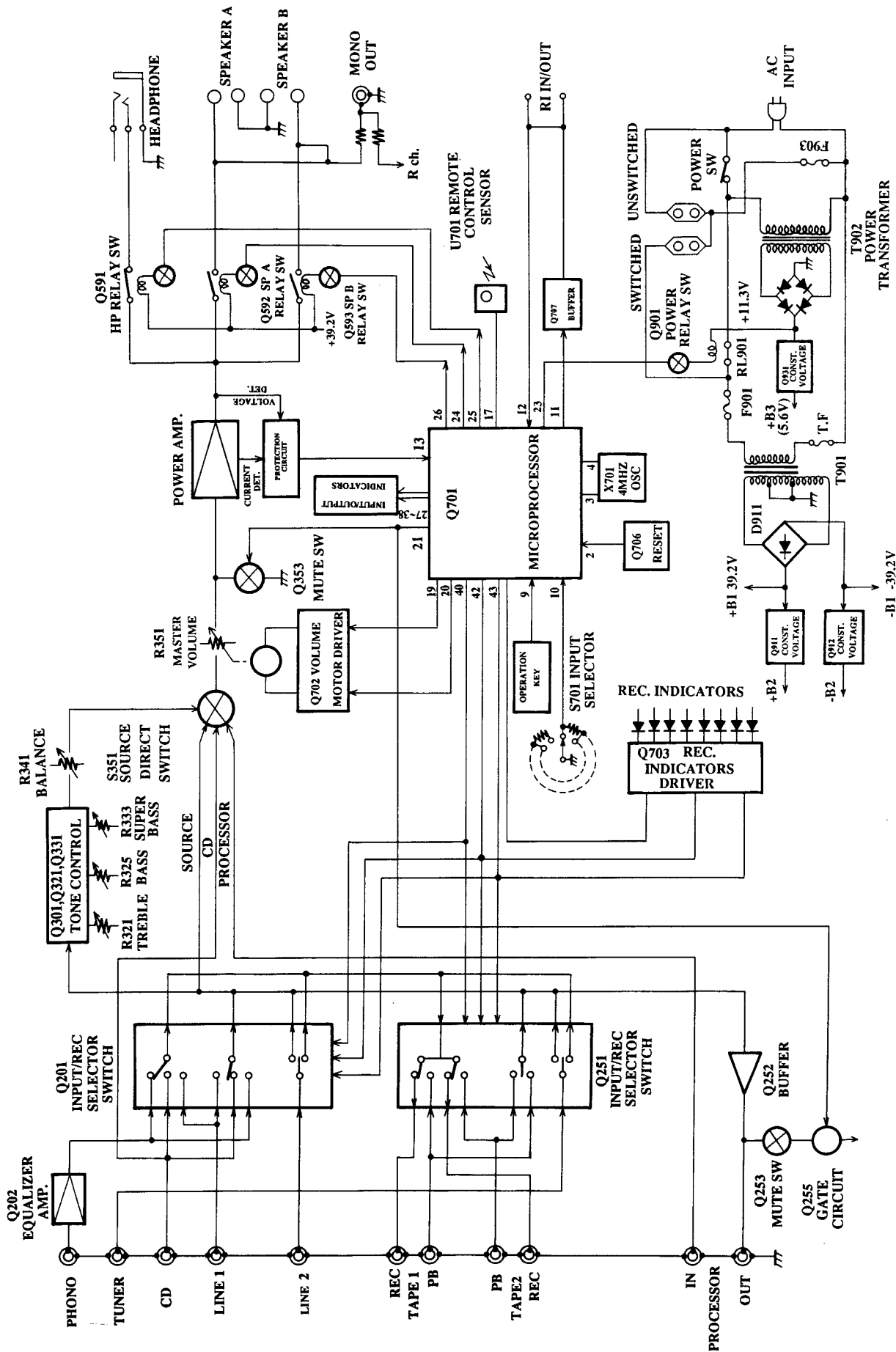
This unit does not require memory preservation batteries.

A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged.

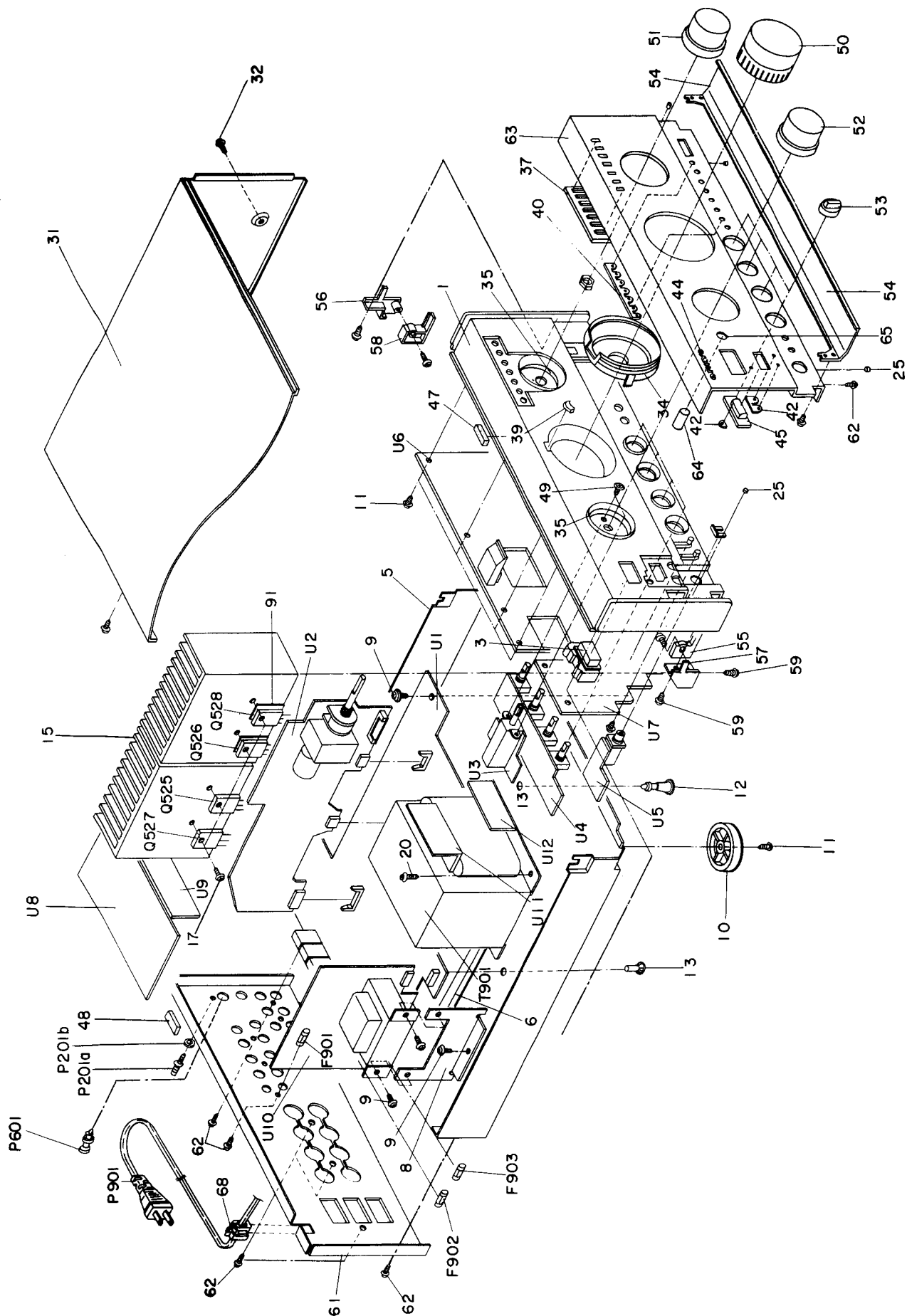
The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month the keep the back-up system operative.

The period of the time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorted when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

BLOCK DIAGRAM



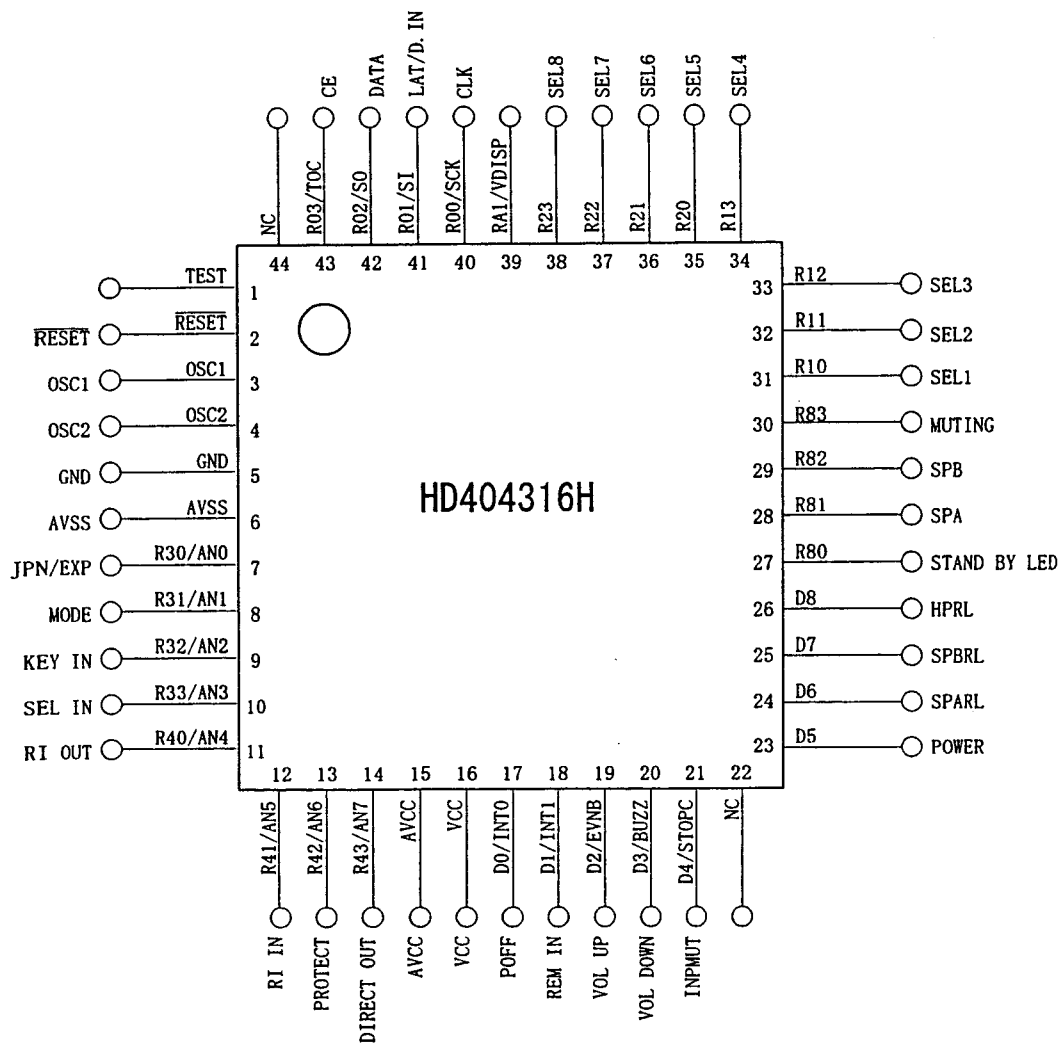
EXPLODED VIEW



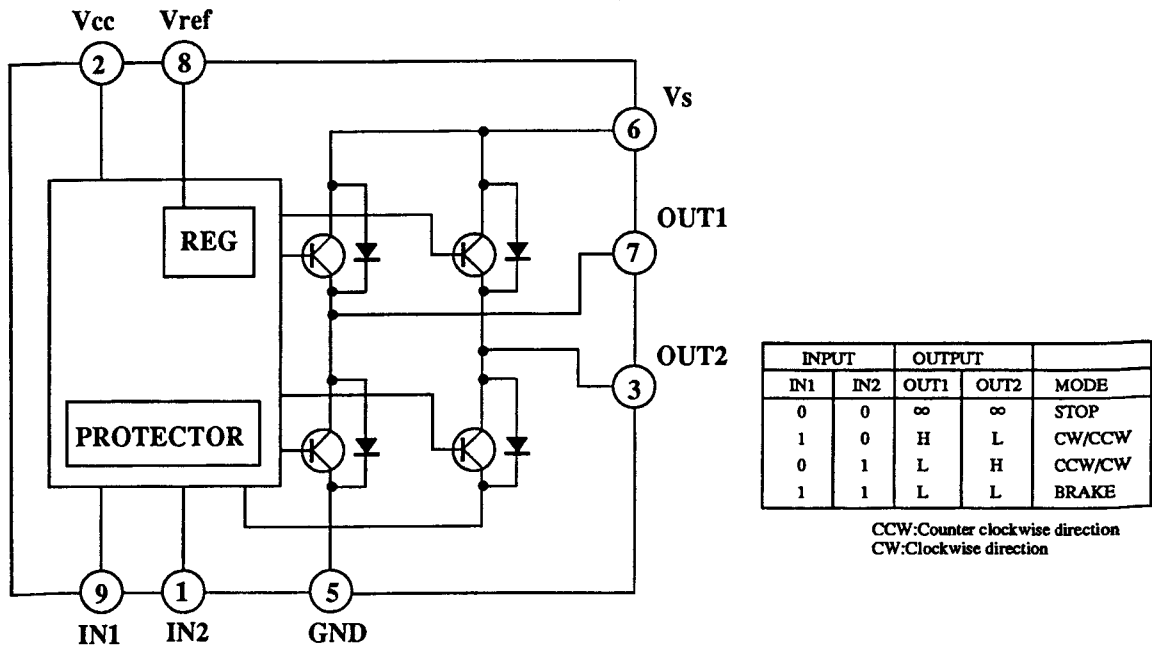
EXPLODED VIEW-PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	27110923	Front bracket <S>
	27110924	Front bracket
3	28325322	Knob, power <S>
4	28325323	Knob, power
5	8761801305	8×13×0.5, Washer
6	27100310	Chassis
7	27100310	Chassis
8	27141620A	Bracket C
9	838130088	Retainer PT
10	27175294Y	3TTB+8B, Self-tapping screw
12	27190897	Leg ass'y
13	27190802	KGLS-3S, Holder
14	28141235	KGPS-14RF, Holder
15	27160367A	15×30×15, Cushion
17	801433	Radiator
20	830440089	3SMS8W, SW+14B(BC), Special screw
25	28140860	4TTC+8C(BC), Self-tapping screw
26	28141298	Cushion
31	28184548B	0.5×5×178, Cushion
32	838230088	Top cover <S>
33	838430088	Top cover
34	27267937	3TTB+8B(NI), Nickel screw <S>
35	27267938	3TTB+8B(BC), Self-tapping screw
36	27267939	Bush PC
37	27270147	Guide, volume <S>
39	28198842	Guide, volume
40	28198841A	Guide, selector <S>
42	28198797	Guide, selector
44	28135199Y	Spacer
47	28141302	Facet, input
48	28141288	Facet, volume
49	838430107	Facet, recording
50	28325320	Facet 7
51	28325332	Badge
52	28325333	Clear plate RE
53	28325334	1.6×10×15, Cushion
54	28325335	0.8×10×15, Cushion
55	28325336	3TTB+10S(BC), Self-tapping screw
57	28325312	Knob, volume <S>
	28325313	Knob, volume
	28325314	Knob, selector <S>
	28325315	Knob, selector
	28325316	Knob, direct <S>
	28325317	Knob, direct
	28325318	Knob, level <S>
	28325319	Knob, level
	28325320	Door <S>
	28325321	Door
	28325322	Hinge L
	28325323	Hinge R
	28325324	Hinge HL
	28325325	Hinge HR
	28325326	2.6TTS+6B(BC), Self-tapping screw
	28325327	2.6TTB+8B(BC), Self-tapping screw
	28325328	Rear panel <P>
	28325329	Rear panel <W>
	28325330	
	28325331	
	28325332	
	28325333	
	28325334	
	28325335	
	28325336	
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	28325705	
	28325706	

MICROPROCESSOR-CONNECTION DIAGRAM



TA7291S (VOLUME MOTOR DRIVER)



MICROPROCESSOR-TERMINAL DESCRIPTION

Pin No.	Mark	Function	Description
1	TEST	TEST	Test terminal. Connect to the ground terminal.
2	RESET	RESET	Reset signal input terminal.
3	OSC1	OSC1	Ceramic resonator connection terminal.
4	OSC2	OSC2	Connect the 4.0MHz ceramic resonator.
5	GND	GND	Ground terminal
6	AVSS	AVSS	Power supply terminal. (+5V)
7	R30/AN0	JPN/EX	Initializing input pin for region selector
8	R31/AN1	MODE	Initializing input pin for mode selector
9	R32/AN2	KEY IN	Operation key connection terminal
10	R33/AN3	SEL IN	Input selector switch connection terminal
11	R40/AN4	RI OUT	System code output terminal
12	R41/AN5	RI IN	System code input terminal
13	R42/AN6	PROTECT	Detection input terminal for protection circuit
14	R43/AN7	DIRECT OUT	Direct output terminal
15	AVCC	AVCC	Analogue reference voltage terminal for A/D convrter
16	VCC	VCC	Power supply terminal. (+5V)
17	D0/INT0	POFF	Detection input terminal for power failure
18	D1/INT1	REM IN	Remote control signal input terminal
19	D2/ENV	VOLUP	Volume control pin.
20	D3/BUZ	VOL DOWN	Refer to the table 1.
21	D4/STOC	INP MUT	Muting output terminal
22	NC	NC	Not used
23	D5	POWER	Relay control output terminal for power source
24	D6	SPARL	Relay control output terminal for speaker A
25	D7	SPBRL	Relay control output terminal for speaker B
26	D8	HPRL	Relay control output terminal for headphone
27	R80	STAND BY	Stand-by indicator output terminal.
28	R81	SPA	Speaker A indicator output terminal
29	R82	SPB	Speaker B indicator output terminal
30	R83	MUTING	Muting output terminal
31	R10	SEL1	Input selector indicator output terminal
32	R11	SEL2	Input selector indicator output terminal
33	R12	SEL3	Input selector indicator output terminal
34	R13	SEL4	Input selector indicator output terminal
35	R20	SEL5	Input selector indicator output terminal
36	R21	SEL6	Input selector indicator output terminal
37	R22	SEL7	Input selector indicator output terminal
38	R23	SEL8	Input selector indicator output terminal
39	RA1/VD	NC	Not used
40	RO0/SC	CLK	Transfer clock output terminal to function switch
41	RO1/SI	LAT/D.I	Not used
42	RO2/SO	DATA	Transfer data output terminal to function switch
43	RO3/SO	CE	Transfer chip enable output terminal to function switch
44	NC	NC	Not used

Operation	VOL UP Output	VOL DOWN Output
Stop	H	H
VOL UP	H	L
VOL DOWN	L	H
Power Off	L	L

Table 1

PRINTED CIRCUIT BOARD-PARTS LIST

MAIN CIRCUIT PC BOARD (NAAF-5700-1B) CIRCUIT NO. PART NO. DESCRIPTION

ICs		
Q251	22240800	TC9164AN
Q252	22240293	NJM4558L-D
Transistors		
Q253,Q254	2213631 or 2213632	RN1241-A or RN1241-B
Q255	2213510 or 2214350	DTA114ES or RN2202
Q501,Q502	2215428 or 2215427	2SC5169-H or 2SC5169-G
Q505,Q506	2211255 or 2214915	2SC1815-GR or 2PC1815-GR
Q507,Q508	2213284 or	2SC1740S-R or
Q515,Q516	2212115	2SC2458-GR
Q509~Q514	2211354 or 2211353	2SA949-Y or 2SA949-O
Q517,Q518	2211633 or 2211634	2SC2229-O or 2SC2229-Y
Q519,Q520	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
Q521,Q522	2212654 or 2212653	2SC3421-Y or 2SC3421-O
Q523,Q524	2212644 or 2212643	2SA1358-Y or 2SA1358-O
Q525,Q526	2202523, 2202524, 2202526,	* 2SC4468-O, * 2SC4468-Y, * 2SC4468-P,
	2203062 or 2203063	* 2SC5198-R or * 2SC5198-O
Q527,Q528	2202513, 2202514, 2202516,	* 2SA1695-O * 2SA1695-Y * 2SA1695-P
	2203052 or 2203053	* 2SA1941-R * 2SA1941-O
Q529,Q530	2211732 or 2211733	2SC1845-F or 2SC1845-E
Q531	2211792 or 2211793	2SA992-F or 2SA992-E
Q532,Q533	2211255 or 2214915	2SC1815-GR or 2PC1815-GR
Q591~Q593	2213650	DTD113ZS
Q911,Q931	2202705 or 2202706	2SD2394-E or 2SD2394-F
Q912	2202715 or 2202716	2SB1565-E or 2SB1565-F
Diodes		
D551	224470512	MTZJ5.1B, Zener
D591~D593	223205 or 223163	1SS270A or 1SS133
D911	22380274 or 22380038	RS603M or RBV602
D916,D917	224471503	MTZJ15C, Zener

CIRCUIT NO. PART NO.

Diodes	
D931~D934	22380035 or
D936	22380046
D935	224470512
D937	224470623

Colls	
L501,L502	231176SY

Capacitors

C251~C256	374723315	330pF ± 10%, 50V, Plastic
C257,C258	393380227	2.2 μ F, 50V, Elect.
C259~C262	393380337	3.3 μ F, 50V, Elect.
C263	393380107	1 μ F, 50V, Elect.
C503~C506	374721015	100pF ± 10%, 50V, Plastic
C511,C512	393324717	470 μ F, 6.3V, Elect.
C515,C516	374721024	1000pF ± 5%, 50V, Plastic
C521~C524	393381007	10 μ F, 50V, Elect.
C525,C526	374721034	0.01 μ F ± 5%, 50V, Plastic
C529,C530	374724734	0.047 μ F ± 5%, 50V, Plastic
C531,C532	393322217	220 μ F, 6.3V, Elect.
C541	393322217	220 μ F, 6.3V, Elect.
C542	393380477	4.7 μ F, 50V, Elect.
C567~C570	393382217	220 μ F, 50V, Elect.
C592,C593	374722234	0.022 μ F ± 5%, 50V, Plastic
C595~C598	374724724	4700pF ± 5%, 50V, Plastic
C911,C912	374731044	0.1 μ F ± 5%, 100V, Plastic
C913	374732244	0.22 μ F ± 5%, 100V, Plastic
C914,C915	3500185	6800 μ F, 50V, Elect.
C914b	28141106	Cushion
C918,C919	393361017	100 μ F, 35V, Elect.
C920,C921	393341017	100 μ F, 16V, Elect.
C922,C923	393342217	220 μ F, 16V, Elect.
C926	374721044	0.1 μ F ± 5%, 50V, Plastic
C931	393344707	47 μ F, 16V, Elect.
C932	393342227	2200 μ F, 16V, Elect.
C933	393341017	100 μ F, 16V, Elect.
C934	393343317	330 μ F, 16V, Elect.
C936	393321017	100 μ F, 6.3V, Elect.
C937	393341007	10 μ F, 16V, Elect.

Resistors

R519~R522	443528204	82 Ω ± 5%, 1/2W, Metal oxide
R523,R524	443526804	68 Ω ± 5%, 1/2W, Metal oxide
R525,R526	443528204	82 Ω ± 5%, 1/2W, Metal oxide
R531,R532	5210259	N06HR2KBC, Trim
R537,R538	443528204	82 Ω ± 5%, 1/2W, Metal oxide
R539,R540	4500031	MPC722-5WK, 0.22, Metal plate
R545,R546	453530824	8.2 Ω ± 5%, 1/2W, Metal
R571,R572	453530474	4.7 Ω ± 5%, 1/2W, Metal
R573,R574	443521514	150 Ω ± 5%, 1/2W, Metal oxide
R585,R586	443623914	390 Ω ± 5%, 1W, Metal oxide
R591	443522724	2.7k Ω ± 5%, 1/2W, Metal oxide
R592,R593	443621024	1k Ω ± 5%, 1W, Metal oxide
R911~R914	443622714	270 Ω ± 5%, 1W, Metal oxide
R915,R916	443521824	1.8k Ω ± 5%, 1/2W, Metal oxide

CAUTION: Replacement for transistor of mark *, if necessary must be made from the same beta group (HFE) as the original type.

CIRCUIT NO. PART NO. DESCRIPTION

Plugs		
P301a	25055413	NPLG-11P395
Sockets		
P302b	25051233	NSCT-8P1023
P501b,P911b	25051231	NSCT-6P1021

DIRECT SWITCH PC BOARD (NASW-5702-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
S351	25030377	NRS-144-20S, Rotary switch
JL351b	2050034	NCS-11P6E10, Shield wire
P351a	2009990348	NSAS-4P0485, Socket

TONE CONTROL CIRCUIT PC BOARD (NAAF-5703-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q301,Q321	22240273	NJM4565S-D
Q331	22240273	NJM4565S-D
Capacitors		
C301,C302	393380107	1 μ F,50V,Elect.
C305,C306	393344707	47 μ F,16V,Elect.
C321,C322	374723334	0.033 μ F $\pm$ 5%,50V,Plastic
C325,C326	393380227	2.2 μ F,50V,Elect.
C327,C328	374721834	0.018 μ F $\pm$ 5%,50V,Plastic
C331,C332	393380227	2.2 μ F,50V,Elect.
C333,C334	374723934	0.039 μ F $\pm$ 5%,50V,Plastic
C391,C392	393380337	3.3 μ F,50V,Elect.
Resistors		
R331,R332	5104372	N14RGLC100KWT12Z, Variable
R325,R326	5104372	N14RGLC100KWT12Z, Variable
R333,R334	5104372	N14RGLC100KWT12Z, Variable
R341,R342	5104373	N11RGLC250KWT12Z, Variable
Wire holder		
JL571a	25051107	NSCT-3P894
Socket		
P301b	25050679	NSCT-11P483

HEADPHONE TERMINAL PC BOARD (NAETC-5704-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
P581	25045257	YKB26-5138, Headphone
JL571b	25050280	NSCT-3P108, Wire trap

CIRCUIT NO. PART NO. DESCRIPTION

Resistors		
R926	453530224	2.2 Ω $\pm$ 5%,1/2W,Metal
R927	443525604	56 Ω $\pm$ 5%,1/2W,Metal oxide
R931	443521224	1.2k Ω $\pm$ 5%,1/2W,Metal oxide
R932,R934	443524714	470 Ω $\pm$ 5%,1/2W,Metal oxide
R933	443621804	18 Ω $\pm$ 5%,1W,Metal oxide
R935	443521024	1k Ω $\pm$ 5%,1/2W,Metal oxide

Relaies

RL591	25065470 or 25065517	NRL-2P1A-DC24-079 or NRL-2P5A -DC24-098
RL592,RL593	25065510 or 25065517	NRL-2P5A-DC24-095 or NRL-2P5A-DC24-098

Terminals

P251,P252	25045458 or 25045300	NPJ-6PDBL279 or NPJ-6PDBL159
P502	25045459 or 25045302	NPJ-1PDBL280 or NPJ-1PDBL161
P503	25060125	NTM-8PDMN058,Speaker

Plugs

P207a	25055709	NPLG-13P665
P302a	25055704	NPLG-8P660
P501a,P911a	25055702	NPLG-6P658
P505,P506	25055038	NPLG-2P29
P912a	25055258	NPLG-6P241
P921b	25055166	NPLG-3P150

Wire trap

JL701b	25055630	NPLG-9P592
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Radiator

D911a	27160166	
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Screw

D911b	82143010	3P+10FN(BC), Pan head
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Holder

Q525a~Q528a	25060243	Power transistor
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VOLUME PC BOARD (NAETC-5701-1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
Transistors		
Q353,Q354	2212285 or 2212286	2SC2878-A or 2SC2878-B
Resistors		
R351,R352	5104374	N27DGL100KBT30F, Variable
	5104374	N27DGL100KBT30F, Variable
Wire trap		
JL206b	25055629	NPLG-8P591
Sockets		
P351b	2009990348	NSAS-4P0485
P205a	2009990410	NSAS-14P0552
Shield wire		
JL351a	2050034	NCS-11P6E10
Wire trap		
JL702b	25055629	NPLG-8P591

MICROPROCESSOR CIRCUIT PC BOARD (NADG-5705-1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q701	22241047 or 22241006	HD404316B81H (Mask) HD4074318H (One time)
Add the network resistors R751 to R754 when you use the one time microprocessor.		
(R751)	49163104403	RM1/101J 100K*3
(R752)	49163104409	RM1/101J 100K*9
(R753,R754)	49163103403	RM1/101J 10K*3
Q702	22240239	TA7291S
Q703	222745955	74HC595P
Transistors		
Q706	2213284 or 2212115	2SC1740S-R or 2SC2458-GR
Q707	2213510 or 2214350	DTA114ES or RN2202
Q708,Q710	2213290 or 2214230	DTC114ES or RN1202
Q709	2213640 or 2214660	DTC123JS or RN1205
Diodes		
D701	225292D	SEL4310G-D, LED
D702~D708	225290	SEL4110R, LED
D709,D710	223205 or 223163	1SS270A or 1SS133
D722~D725	225291D	SEL4910D-D, LED
D711~D717	225141	SEL2213C, LED
D718	225142DX2	SEL2913K-DX2, LED
D719,D720	224470562	MTZJ5.6B, Zener
D721	22380035 or 22380046	GP104003E or AM01Z
D726	223205 or 223163	1SS270A or 1SS133
D727	223205 or 223163	1SS270A or 1SS133
Resonator		
X701	3010150	CST4.00MGW, Ceramic
Capacitors		
C701	393341007	10 μ F, 16V, Elect.
C703	393380337	3.3 μ F, 50V, Elect.
C705	355741009	10 μ F, 16V, Elect.
C710	3000076	EECS5R5T104, Super
C711	375524744	0.47 μ F $\pm$ 5%, 50V, Plastic
C713,C717	355741009	10 μ F, 16V, Elect.
Switches		
S701	25030345	NRS-1112-15SRM, Rotary
S702	25035652	NPS-111-S604, Push
Wire holders		
JL701a	25051093	NSCT-9P880, WIRE HOL
JL702a,JL703b	25051092	NSCT-8P879, WIRE HOL
Holder		
D718a	27190976	

SPEAKER SWITCH PC BOARD (NADG-5706-1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
Remote sensor		
U711	24130011	PIC-12043TE2, REMO SENS
Transistors		
Q771~Q773	2213290 or 2214230	DTC114ES or RN1202
Diodes		
D771	223205 or 223163	1SS270A or 1SS133
D772	225290	SEL4110R, LED
D773,D774	225291D	SEL4910D-D, LED
Capacitor		
C772	393341007	10 μ F, 16V, Elect.
Switches		
S771~S773	25035652	NPS-111-S604
Wire holder		
JL703a	25051092	NSCT-8P879

INPUT TERMINAL PC BOARD (NAAF-5707-1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
ICs		
Q201	22240799	TC9163AN
Q202	222502	NJM4558D-X
Capacitors		
C203,C204	393341007T	10 μ F, 16V, Elect.
C205,C206	393321017T	100 μ F, 6.3V, Elect.
C207,C208	374726824T	6800pF $\pm$ 5%, 50V, Plastic
C209,C210	374721824T	1800pF $\pm$ 5%, 50V, Plastic
C211,C212	393341007T	10 μ F, 16V, Elect.
C213~C220	374723315T	330pF $\pm$ 10%, 50V, Plastic
C224,C225	393342217T	220 μ F, 16V, Elect.
C226,C227	393380337T	3.3 μ F, 50V, Elect.
C231,C232	374721524T	1500pF $\pm$ 5%, 50V, Plastic
C351	393380107T	1 μ F, 50V, Elect.
C352	374722234T	0.022 μ F $\pm$ 5%, 50V, Plastic
C501,C502	393381007T	10 μ F, 50V, Elect.
Wire holder		
JL206a	25051092	NSCT-8P879
Terminals		
P201	25045471	NPJ-2PDBL289 or
	25045333	NPJ-2PDBL185
P202,P203	25045460	NPJ-4PDBL280 or
	25045303	NPJ-4PDBL162
P204	25045330	NPJ-2PDBL184
Plug		
P205b	25055137	NPLG-7P121

CONNECTOR PC BOARD (NAETC-5708-1B/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
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P207b	25051238	NSCT-13P1028, Socket
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230MODEL
POWER SUPPLY CIRCUIT PC BOARD (NAPS-5709-1B)
CIRCUIT NO. PART NO. DESCRIPTION

Q901	Transistors	
	2213650	DTD113ZS
D901 D901or	Diode	
	223205 or 223163	1SS270A or 1SS133
T902	Power transformer	
	2300947	△ NPT-1184P
C902 C906	Capacitors	
	3500191 3500077	△ DE7150F103M, IS △ DE7150F472M, IS
R901	Resistor	
	443525604	△ 56Ω ±5%,1/2W,Metal oxide
F901a,F903a	Fuseholders	
	25050065	△ YSH403T
F901,F903	Fuses	
	252074	△ 2A-SE-EAK
RL901	Relay	
	25065515 25065483	△ NRL-1P5A -DC12-096 or NRL-1P5A -DC12-084
P901a	Plug	
	25055675	NPLG-2P631
P903	Terminal	
	25051638	△ NSCT-4P1425, AC OUTLET
P912b	Socket	
	25050302	NSCT-6P129, SOCKET

SECONDARY CIRCUIT PC BOARD (NAETC-5712-1B)
CIRCUIT NO. PART NO. DESCRIPTION

P921a	2009990342	NSAS-3P0479, Socket
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POWER SWITCH PC BOARD (NASW-5713-1B)
CIRCUIT NO. PART NO. DESCRIPTION

C901	3500191	△ DE7150F103M, IS capacitor
S901	25035550	△ NPS-111-L512, Push switch

WORLDWIDE MODE
POWER SUPPLY CIRCUIT PC BOARD (NAPS-5710-1C)
CIRCUIT NO. PART NO. DESCRIPTION

Q901	Transistors	
	2213650	DTD113ZS
D901	Diode	
	223205 or 223163	1SS270A or 1SS133
T902	Power toransformer	
	2300948	△ NPT-1184DG
C904 C907	Capacitors	
	3500191 3500077	△ DE7150F103M, IS △ DE7150F472M, IS
R902	Resistor	
	443525604	△ 56Ω ±5%,1/2W,Metal oxide
F901a,F903a	Fuseholders	
	25050065	△ YSH403T
F901,F903	Fuses	
	252074	△ 2A-SE-EAK
RL902	Relay	
	25065515 or 25065483	△ NRL-1P5A -DC12-096 or △ NRL-1P5A -DC12-084
P901a	Plug	
	25055675	NPLG-2P631
P903	Terminal	
	25051638	△ NSCT-4P1425, AC OUTLET
P912b	Socket	
	25050302	NSCT-6P129, SOCKET

SECONDARY CIRCUIT PC BOARD (NAETC-5712-1C)
CIRCUIT NO. PART NO. DESCRIPTION

P921a	2009990342	NSAS-3P0479, Socket
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POWER SWITCH PC BOARD (NASW-5713-1C)
CIRCUIT NO. PART NO. DESCRIPTION

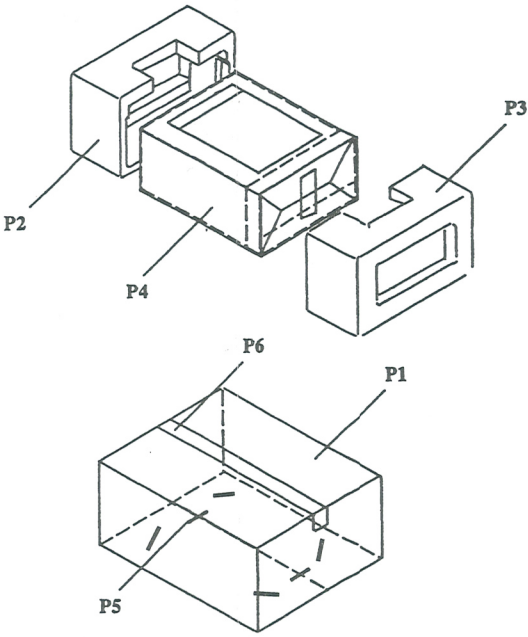
C901	3500191	△ DE7150F103M, IS capacitor
S901	25035550	△ NPS-111-L512, Push switch

VOLTAGE SELECTOR SWITCH PC BOARD (NASW-5714-1C)
CIRCUIT NO. PART NO. DESCRIPTION

S902	25065437	△ NSS-22157P, Slide switch
F904a,F905a	25050065	△ YSH403T, Fuse holders
F904	252152	△ 5A-TSC,Fuse
F905	252074	△ 2A-SE-EAK,Fuse

NOTE: THE COMPONENTS IDENTIFIED BY MARK △ ARE
CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK.
REPLACE ONLY WITH PART NUMBER SPECIFIED.

PACKING VIEW



REF. NO.	PART NO.	DESCRIPTION
P1	29052989A	Carton box <S>
	29052990A	Carton box
P2	29091642B	Pad L
P3	29091634C	Pad R
P4	29100037-1AY	650 × 500, Styren bag
P5	282321	Staple
P6	29110077	P.P. tape
	Accessary ass'y	
	29100097-1AY	350 × 250, Styren bag
	29342285	Instruction manual E
	29342287	Instruction manual U3 <W/PT>
	29342286	Instruction manual U6 <E>
	24140320	RC-320S, Remote control
	29095745A	U7(CE), Instruction sheet
	3010054	UM-3, Battery
	25055040	CV-K-2, Conversion plug <W>
	29355258	Instruction sheet U8
	24140320	RC-320S, Remote control

NOTE: <S>:Silver model only
:Black model only
<E>: European model only
<PT>:Asian model only
<W>:Worldwide model only

ADJUSTMENT PROCEDURES

1. Preparations

- Place the unit on the workbench. (There should be about 15mm of space between the base plate of the unit and the work surface.)
- Set up the unit as follows.
 - No load
 - No signal
 - Volume turned all the way down.
 - Speaker switch OFF
 - Power wswitch OFF

Note) Check the following points before making adjustments

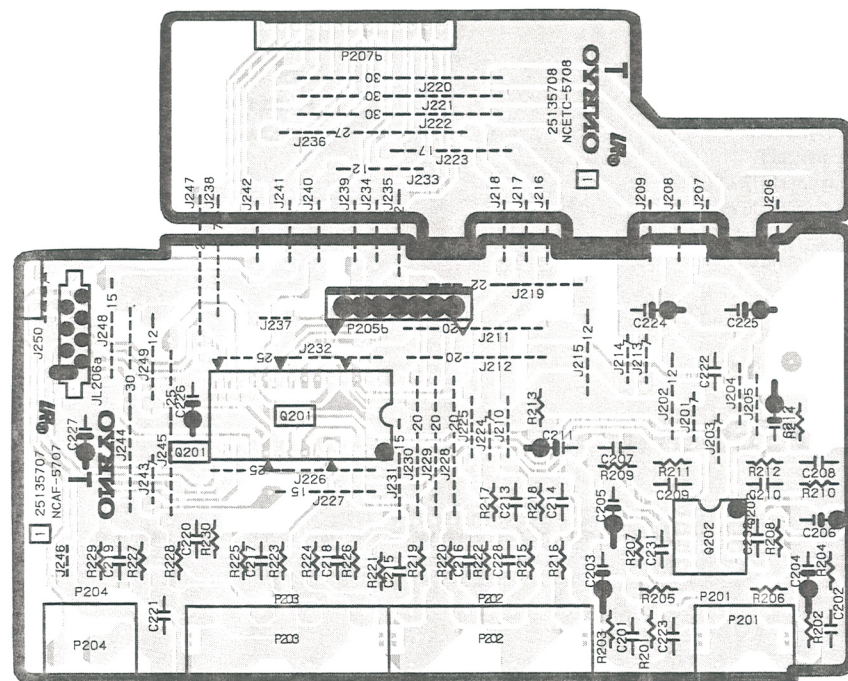
- The power switch should be OFF.
- The interior of the unit should not be warm.

2. Idling current adjustment

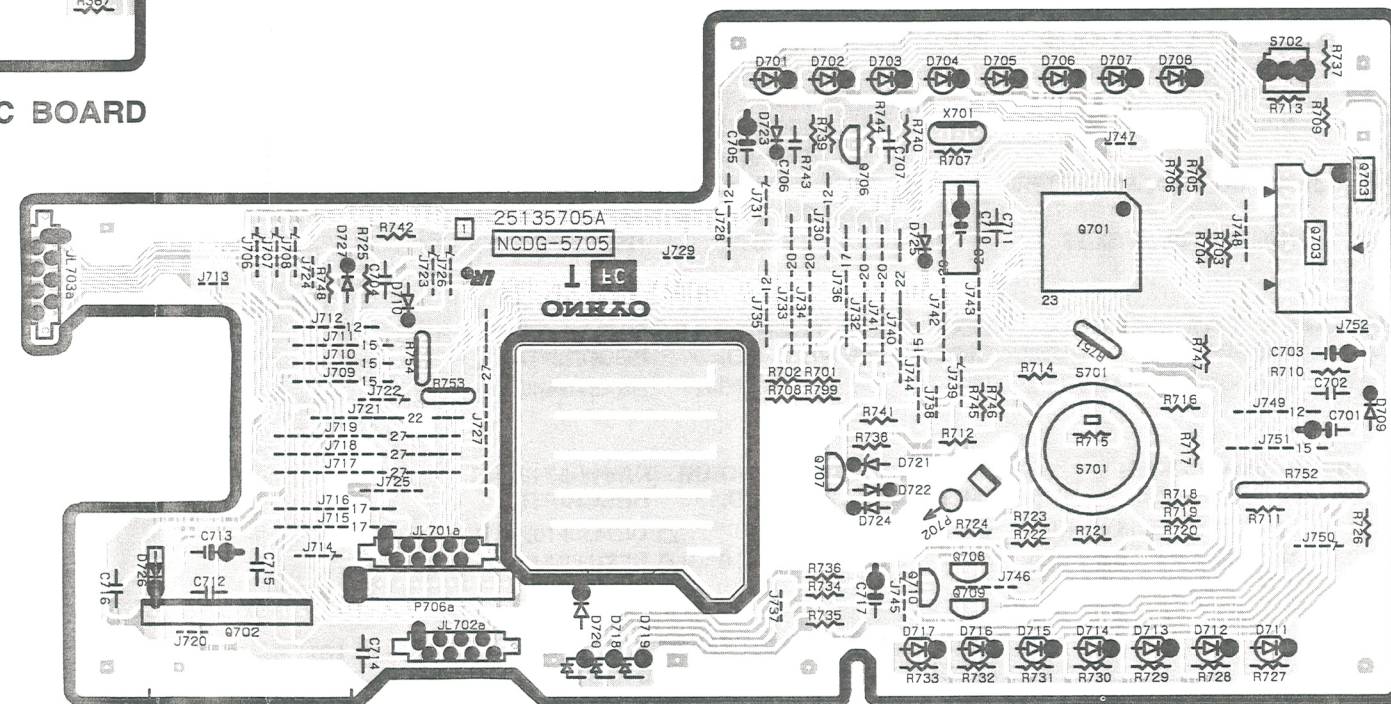
- Turn the power switch ON and allow the unit to warm up for about 10 minutes.
 - Ajust R531 (R532) so that voltage at test point P505 (P506) board is 10.5+1.5mV

NOTE) Trimming resistors enclosed in parentheses () are for the right channel.

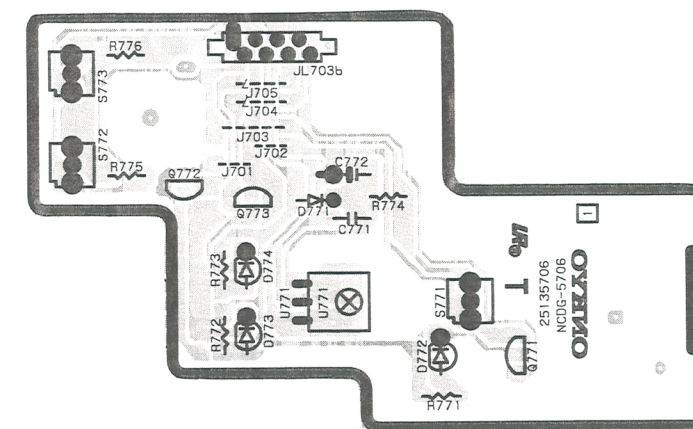
VOLUME PC BOARD



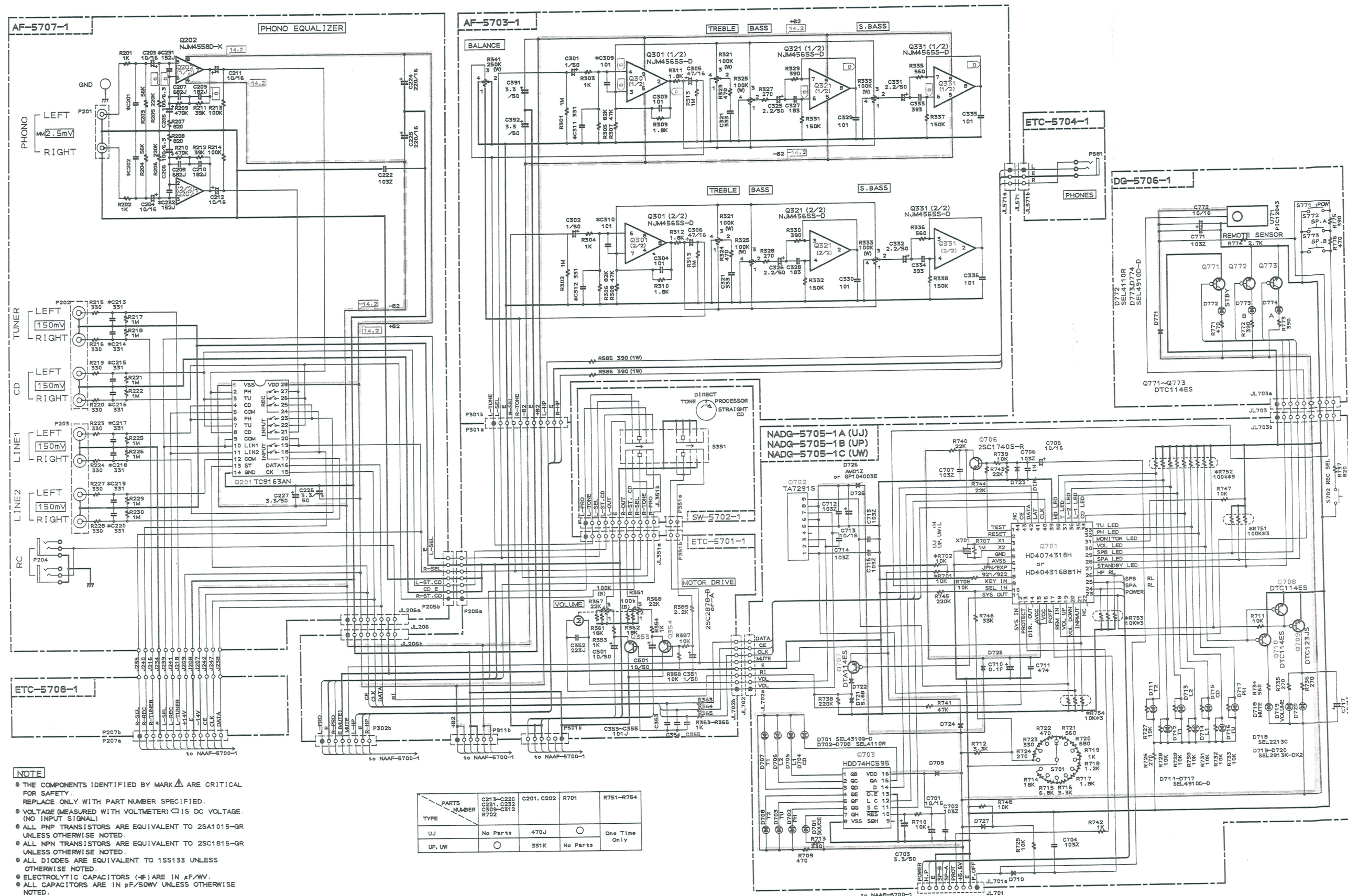
TONE CONTROL CIRCUIT PC BOARD



MICROPROCESSOR CIRCUIT PC BOARD



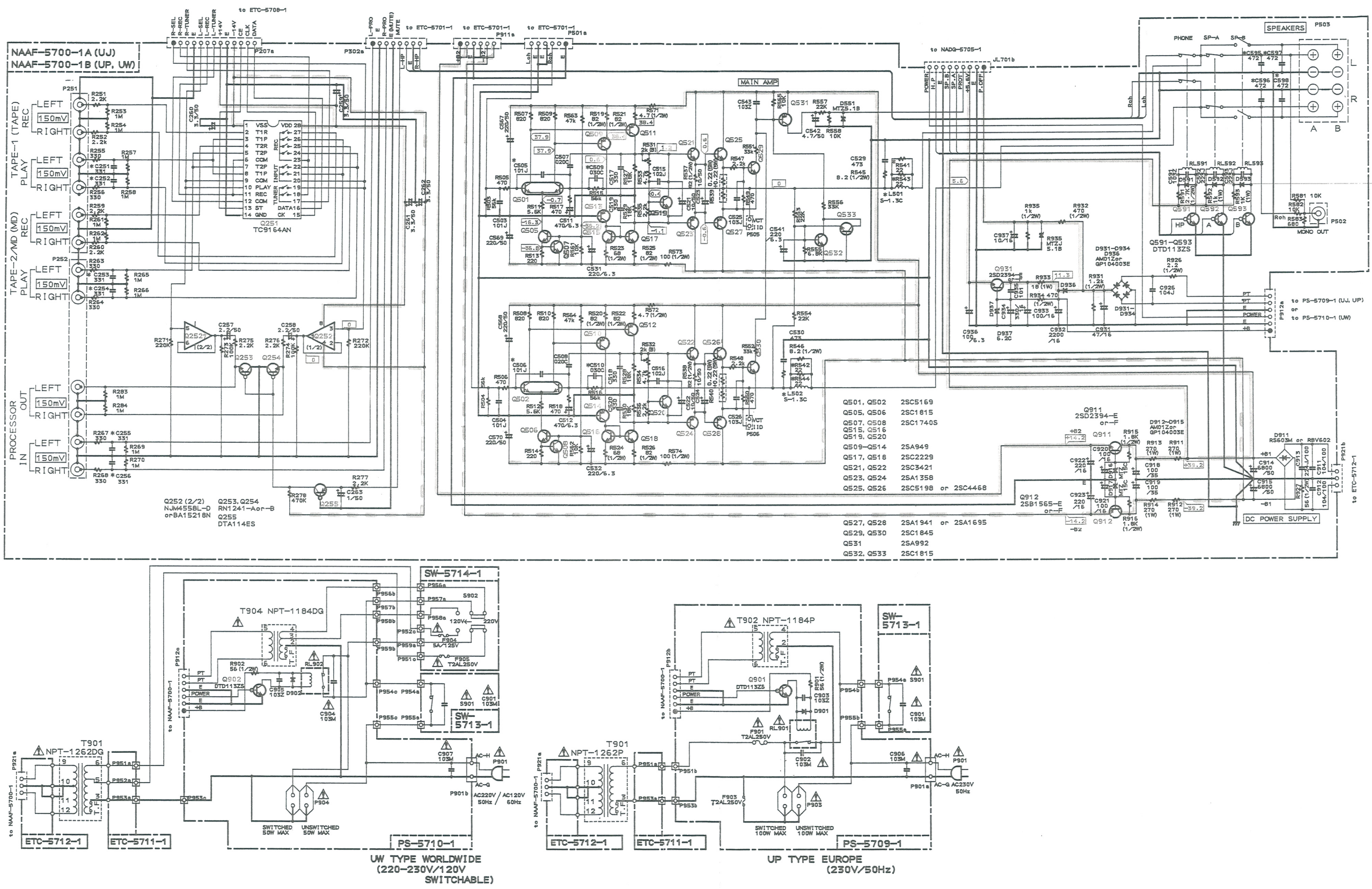
SCHEMATIC DIAGRAM



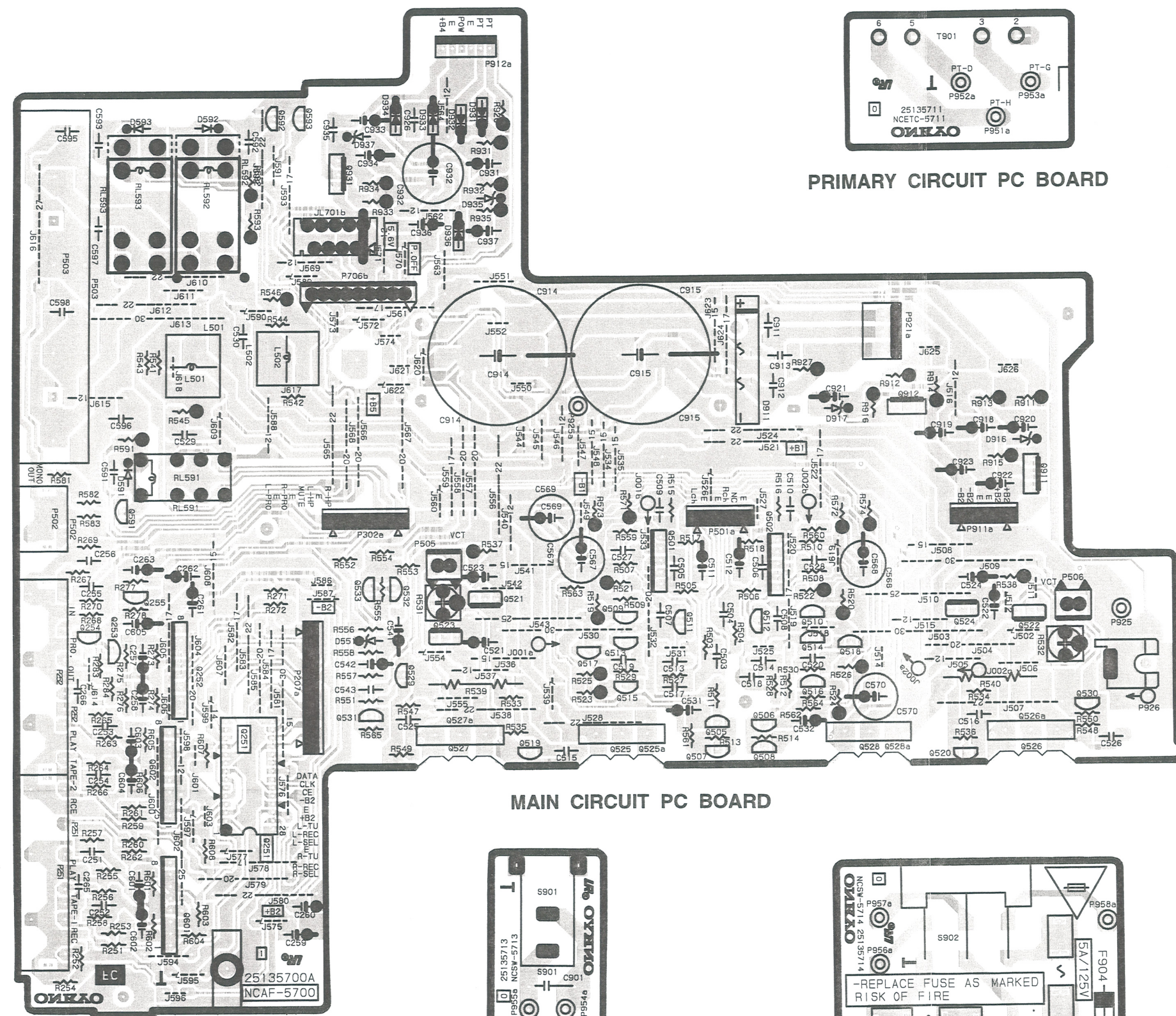
A B C D E F G

SCHEMATIC DIAGRAM

1
2
3
4
5



PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



POWER SWITCH PC BOARD

VOLTAGE SELECTOR SWITCH PC BOARD
Worldwide model only

PRIMARY CIRCUIT PC BOARD

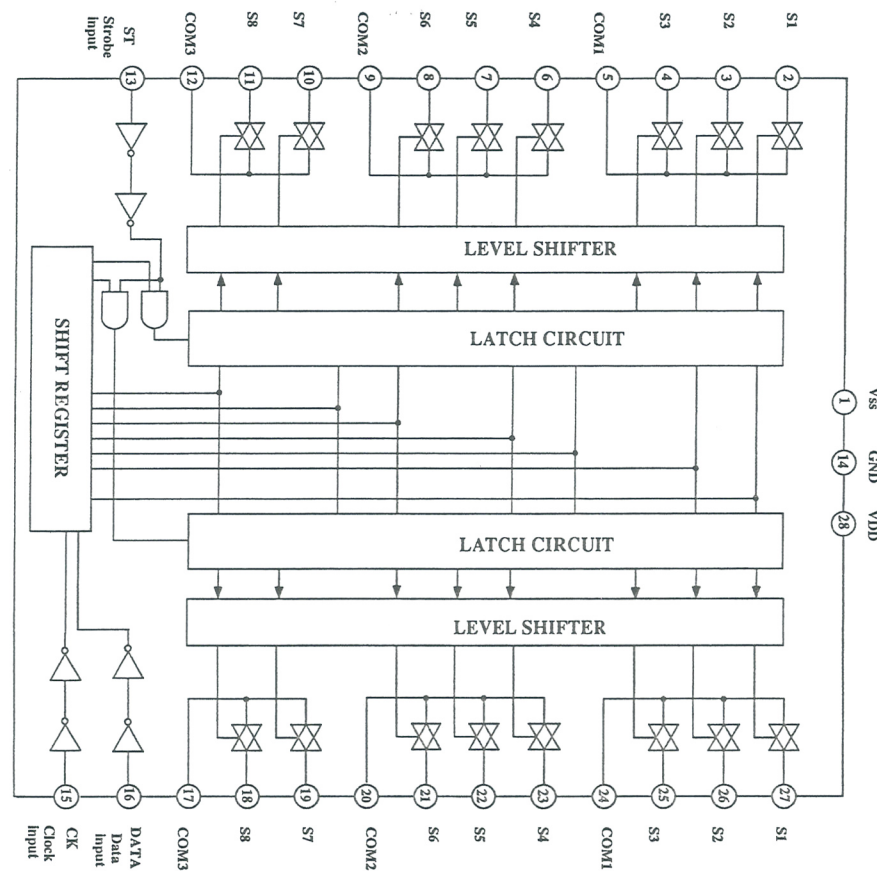
SECONDARY CIRCUIT PC BOARD

POWER SUPPLY CIRCUIT PC BOARD
230V model only

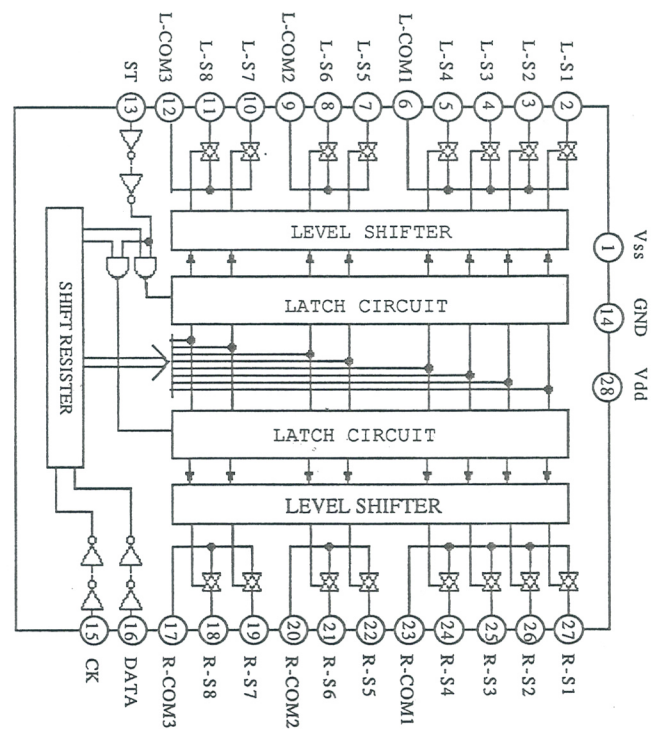
POWER SUPPLY CIRCUIT PC BOARD
Worldwide model only

IC BLOCK DIAGRAMS AND DESCRIPTIONS

TC9163AN (ANALOG SWITCH)



TC9164AN (ANALOG SWITCH)



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